

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of the claims:

Listing of Claims:

1 to 123. **(Canceled)**

124. **(New)** An isolated sulfatase-producing cell wherein the ratio of active sulfatase to total sulfatase produced by the cell is increased, the cell comprising:

(i) a sulfatase, and

(ii) an over-expressed Formylglycine Generating Enzyme (FGE) comprising an amino acid sequence at least 95% identical to amino acids 34-374 of SEQ ID NO:2,

wherein the ratio of the active sulfatase to total sulfatase produced by the cell is increased by at least 5% relative to the ratio of active sulfatase to total sulfatase produced by the cell in the absence of the over-expressed Formylglycine Generating Enzyme.

125. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the over-expressed Formylglycine Generating Enzyme (FGE) comprises amino acids 34-374 of SEQ ID NO:2.

126. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the over-expressed Formylglycine Generating Enzyme (FGE) comprises an amino acid sequence of SEQ ID NO:2.

127. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the over-expressed FGE is an endogenous FGE expressed by a heterologous promoter upstream of the endogenous FGE gene.

128. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the over-expressed FGE is an exogenous FGE introduced into the cell.

129. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the sulfatase is an

endogenous sulfatase expressed by the cell.

130. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the sulfatase is an exogenous sulfatase over-expressed by the cell.

131. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the ratio of active sulfatase to total sulfatase produced by the cell is increased by at least 10% over the ratio of active sulfatase to total sulfatase produced by the cell in the absence of the over-expressed Formylglycine Generating Enzyme.

132. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the ratio of active sulfatase to total sulfatase produced by the cell is increased by at least 20% over the ratio of active sulfatase to total sulfatase produced by the cell in the absence of the over-expressed Formylglycine Generating Enzyme.

133. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the ratio of active sulfatase to total sulfatase produced by the cell is increased by at least 50% over the ratio of active sulfatase to total sulfatase produced by the cell in the absence of the over-expressed Formylglycine Generating Enzyme.

134. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the ratio of active sulfatase to total sulfatase produced by the cell is increased by at least 100% over the ratio of active sulfatase to total sulfatase produced by the cell in the absence of the over-expressed Formylglycine Generating Enzyme.

135. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the sulfatase is selected from the group consisting of Iduronate 2-Sulfatase, Sulfamidase, N-Acetylgalactosamine 6-Sulfatase, N-Acetylglucosamine 6-Sulfatase, Arylsulfatase A, Arylsulfatase B, Arylsulfatase C, Arylsulfatase D, Arylsulfatase E, Arylsulfatase F, Arylsulfatase G, HSulf-1, HSulf-2, HSulf-3, HSulf-4, HSulf-5, and HSulf-6.

136. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the cell is a

mammalian cell.

137. **(New)** The isolated sulfatase-producing cell of claim 124, wherein the mammalian cell is a human cell.

138. **(New)** A sulfatase produced by an isolated sulfatase-producing cell of claim 124.

139. **(New)** A pharmaceutical composition comprising a sulfatase of claim 138.

140. **(New)** A method of producing active sulfatase comprising a step of cultivating an isolated sulfatase-producing cell of claim 124.

141. **(New)** An isolated sulfatase-producing cell wherein the ratio of active sulfatase to total sulfatase produced by the cell is increased, the cell comprising:

(i) an over-expressed sulfatase, and

(ii) a Formylglycine Generating Enzyme (FGE) comprising an amino acid sequence at least 95% identical to amino acids 34-374 of SEQ ID NO:2,

wherein the ratio of the active sulfatase to total sulfatase produced by the cell is increased by at least 5% relative to the ratio of active sulfatase to total sulfatase produced by the cell in the absence of the Formylglycine Generating Enzyme.

142. **(New)** The isolated sulfatase-producing cell of claim 141, wherein the FGE comprises amino acids 34-374 of SEQ ID NO:2.

143. **(New)** The isolated sulfatase-producing cell of claim 141, wherein the FGE comprises an amino acid sequence of SEQ ID NO:2.

144. **(New)** The isolated sulfatase-producing cell of claim 141, wherein the FGE is an endogenous FGE expressed by the cell.

145. **(New)** The isolated sulfatase-producing cell of claim 141, wherein the FGE is an exogenous FGE over-expressed by the cell.

146. **(New)** The isolated sulfatase-producing cell of claim 141, wherein the over-expressed sulfatase is an exogenous sulfatase introduced into the cell.
147. **(New)** The isolated sulfatase-producing cell of claim 141, wherein the sulfatase is selected from the group consisting of Iduronate 2-Sulfatase, Sulfamidase, N-Acetylgalactosamine 6-Sulfatase, N-Acetylglucosamine 6-Sulfatase, Arylsulfatase A, Arylsulfatase B, Arylsulfatase C, Arylsulfatase D, Arylsulfatase E, Arylsulfatase F, Arylsulfatase G, HSulf-1, HSulf-2, HSulf-3, HSulf-4, HSulf-5, and HSulf-6.
148. **(New)** The isolated sulfatase-producing cell of claim 141, wherein the cell is a mammalian cell.
149. **(New)** The isolated sulfatase-producing cell of claim 141, wherein the mammalian cell is a human cell.
150. **(New)** A sulfatase produced by an isolated sulfatase-producing cell of claim 141.
151. **(New)** A pharmaceutical composition comprising a sulfatase of claim 150.
152. **(New)** A method of producing active sulfatase comprising a step of cultivating an isolated sulfatase-producing cell of claim 141.